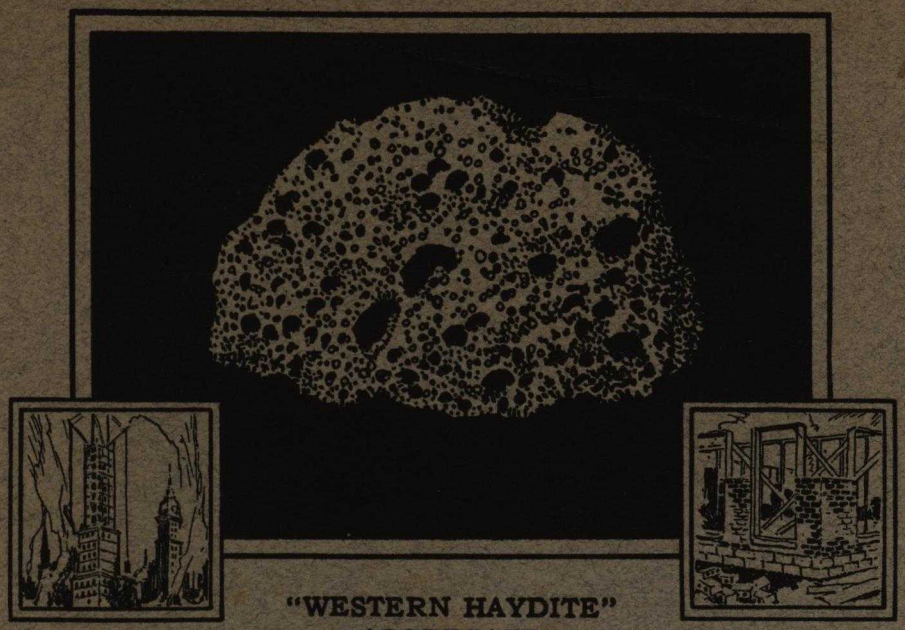

"WESTERN HAYDITE"
AGGREGATE

COMPLETELY CELLULAR DOWN TO THE FINEST PARTICLES. ABOVE IS "WESTERN HAYDITE" SCREENED THRU NO. 14 SIEVE AND MAGNIFIED 48 DIAMETERS.

FEATHERWEIGHT HAYDITE BUILDING UNITS

LIGHTEST WEIGHT AND MOST ECONOMICAL FIRE RESISTANT UNIT NOW AVAILABLE FOR ALL TYPES OF WALL CONSTRUCTION

MADE OF WESTERN HAYDITE AND PORTLAND CEMENT

WESTERN BRICK COMPANY
CHICAGO
1604 BUILDERS BUILDING

BRANCHES
INDIANAPOLIS • FORT WAYNE • GRAND RAPIDS • DANVILLE

HAYDITE BUILDING UNITS. A. I. A. FILE NO. 10a2.

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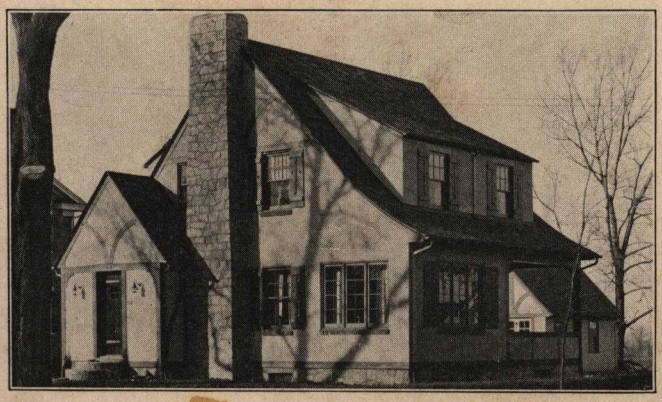


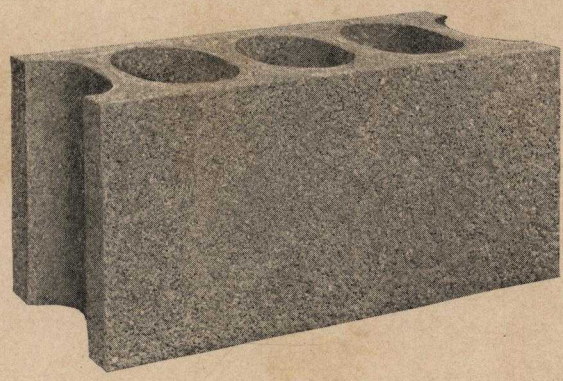
Residence of E. M. ELWOOD
BATAVIA, ILL.

E. M. ELWOOD, Architect
LOUIS HILL, Builder

HAYDITE BACK-UP
PLASTERED DIRECT TO UNIT
WITHOUT LATHING

"FEATHERWEIGHT" HAYDITE BUILDING UNITS

TO THE BUILDING TRADE



THE "FEATHERWEIGHT" HAYDITE BUILDING UNIT, now offered to the Building Industry, is composed of Portland Cement and WESTERN HAYDITE, the lightweight aggregate.

WESTERN HAYDITE is manufactured by the WESTERN BRICK COMPANY at its Danville, Illinois, plant and is distributed by the same company, thru sales offices located in Chicago, Danville, Indianapolis, Grand Rapids and Fort Wayne.

The FEATHERWEIGHT HAYDITE BUILDING UNIT is manufactured and sold by leading concrete products firms in most cities throughout Illinois, Indiana, Michigan, Wisconsin and Iowa.

The Unit is made into all the standard shapes and sizes now required by modern building practice.

Continued study and absolute control of the preparation and grading of WESTERN HAYDITE, the aggregate, together with careful manufacturing control and quantity production, enables leading concrete products firms to offer the FEATHERWEIGHT HAYDITE BUILDING UNIT to the trade as the LIGHTEST WEIGHT AND MOST ECONOMICAL FIRE RESISTANT UNIT AVAILABLE TODAY FOR ALL TYPES OF WALL CONSTRUCTION.

This high grade unit and the service of the WESTERN BRICK COMPANY, backed by 27 years of experience and prestige in a National industry, are at the disposal of the Building Trade in offering this new unit.

WESTERN "HAYDITE"

THE IDEAL LIGHTWEIGHT AGGREGATE

WESTERN HAYDITE, the aggregate used in the FEATHERWEIGHT HAYDITE BUILDING UNIT, is a lightweight, burned clay aggregate, specially manufactured for use in concrete in place of sand, gravel, stone, slag or cinders.

WESTERN HAYDITE is produced from exactly the same shales as are used in the manufacture of the various grades of WESTERN brick, which have been used in many important buildings throughout the middle west for the past 27 years.

The process of manufacturing WESTERN HAYDITE is to take the shale from the bank in the same way as for making brick and grind it down to a maximum size of one inch. After grinding, the shale is conveyed to rotary kilns of the same type as is used in the manufacture of Portland cement, the kilns revolving as the shale is being delivered to the upper ends.

The shale contains its natural moisture content as delivered to the kilns. It travels continuously thru the kilns, passing a preliminary heating stage and finally reaching a zone of highest heat near the discharge end of the kilns, at which point the kiln temperature is about 2000 degrees F., or about 100 to 150 degrees higher than is used in the burning of the various grades of WESTERN brick and clay tile, using the same shales.

The journey of the shale from upper end of kilns thru gradually increasing temperatures prepares it for the expansion process, which actually converts shale into WESTERN HAYDITE, when it reaches the zone of highest temperature.

Upon reaching this zone, the shale becomes viscous, incipient fusion has taken place, the carbon content has oxidized and formed gases, with the result that the shale has expanded into a lightweight, cellular structure. The expansion process is so complete that the finest particles even down to No. 48 mesh in size, show an ideal cellular structure when magnified.

The resultant product, WESTERN HAYDITE, is a series of air cells, the partitions of which are thoroughly vitrified, fused shale, impervious and of great structural strength.

The product is discharged from the kilns in clinker form and is then taken to the preparation plant where it is ground, screened and graded into all the standard commercial sizes used in concrete.

The entire operation from the raw material to the screening and grading of the aggregate, ready to ship, is under perfect control, assuring the trade of a product that is absolutely uniform at all times.

WESTERN "HAYDITE"

THE IDEAL LIGHTWEIGHT AGGREGATE

COMMERCIAL SIZES OF WESTERN HAYDITE

HAYDITE "A" 00" x 3/16"	Used as fine aggregate in concrete products and general concrete construction.
HAYDITE "B" 3/16" x ½"	Used as coarse aggregate in pre-cast concrete products.
HAYDITE "C" 3/16" x ¾"	Used as coarse aggregate in heavy pre-cast products and in reinforced concrete in all its branches.

USES

Owing to its extreme lightness, WESTERN HAYDITE is the ideal aggregate for such pre-cast concrete products as building units, roofing tile, laundry trays, burial vaults, conduit tile, water and sewer pipe, drain tile, railroad ties, lighting standards, telegraph and telephone poles, and pre-cast roof slabs.

In reinforced concrete structures, the saving in steel area by reduction in dead load (which is about 35% to 40%), coupled with the fact that a fire-resisting and non-corrosive concrete can be obtained, makes WESTERN HAYDITE THE IDEAL AGGREGATE for general building construction, fireproofing steel buildings, reinforced floor slabs, floor fills, water and oil tanks, stacks, bridges and viaducts.

SHIPPING WEIGHT

WESTERN HAYDITE will weigh not to exceed thirteen hundred (1300) pounds per cubic yard as shipped commercially.

DESIGNING DATA

Designing data for use in designing WESTERN HAYDITE concrete structures is available to engineers, architects and builders.

PARAMOUNT FEATURES

LIGHTWEIGHT

Lightest weight fire resistant building unit now available for all types of wall construction.

STRENGTH

Complies with strength requirements of all local and State building codes.

FIRE RESISTANCE

WESTERN HAYDITE being a burned clay aggregate, the fire resistance of the unit is unusually high. Complete tests by the Underwriters Laboratories are contained herein.

NAILING AND CUTTING

Nails are readily driven into the unit, saving nailing plugs and strips. The unit is easily cut or channeled with an ordinary saw or mason's hammer.

INSULATION

Lower rate of heat conductivity than cinder concrete, clay tile or brick for equal thickness of material. Complete tests by Armour Institute are contained herein.

DAMP-PROOF

Owing to the porosity of the unit and the cellular structure of the aggregate, moisture is not drawn thru the unit from the outside. The limited capillarity insures the strongest mortar joint as the moisture is not drawn from the mortar.

SOUND REDUCTION

FEATHERWEIGHT HAYDITE BUILDING UNITS are practically unequalled among fire resistant materials, in the reduction of sound. Special attention is called to the report of Dr. Paul E. Sabine, Riverbank Laboratories, which is contained herein.

PLASTER AND STUCCO CAN BE APPLIED DIRECTLY TO THE UNIT

The surface texture offers even suction. The adhesion is lasting and danger of cracking eliminated. Stucco is applied without metal lath and plaster applied without lathing and furring.

NON-CORROSIVE

Chemical analysis of WESTERN HAYDITE, by Robert W. Hunt Company indicate that the material will not corrode nails, water pipes, conduits or any other metal coming in contact with the unit.

UNIFORMITY

All the paramount features found in this unit can be consistently maintained at all times as WESTERN HAYDITE is made in a central plant and distributed to unit manufacturers throughout the central states. The manufacturers of WESTERN HAYDITE have absolute control of the preparation and grading of the aggregate.

ECONOMY

Utmost in building economy. This feature is treated fully elsewhere in this bulletin.

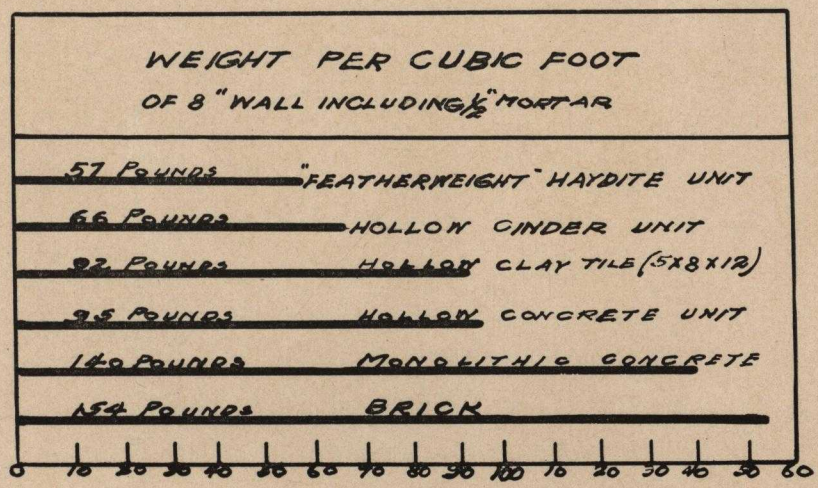
AGE-PROOF

100 alternate freezing and thawings of this unit prove that age will not deteriorate it. Complete report of this severe test is contained herein.

"FEATHERWEIGHT" HAYDITE BUILDING UNITS

LIGHTWEIGHT

LIGHTEST WEIGHT PER CUBIC FOOT OF WALL OF SIX LEADING MASONRY MATERIALS



THE standard 8" x 8" x 16" (nominal size) FEATHERWEIGHT HAYDITE BUILDING UNIT weighs approximately 27 lbs. The above comparative chart is based on the use of this unit, which is the size most generally used in all types of walls. Comparison is made with cinder unit of the same size, which weighs from 32 to 34 lbs., 5" x 8" x 12" clay tile and with common brick.

Special attention is called to the direct reflection in weight of wall due to the amount of mortar used, the 8" x 8" x 16" unit reducing the mortar to a minimum:

Cubic Feet of Mortar Required in 100 Sq. Ft. 8" Wall		*Weight*
8" x 8" x 16" FEATHERWEIGHT HAYDITE UNIT	5½ Cu. Ft.	825 Lbs.
5" x 8" x 12" Clay Tile	13½ Cu. Ft.	2025 Lbs.
Shale or Clay Brick	23 Cu. Ft.	3450 Lbs.

It is apparent that there must be a great difference in speed of wall construction due both to the extreme lightness of the unit and the comparative small volume of mortar necessary to handle in laying up a given wall.

The lightness of the unit greatly reduces the dead load of the wall, meaning a substantial economy particularly in curtain walls and partitions.

The savings in dead weight in wall by the use of FEATHERWEIGHT HAYDITE BUILDING UNITS IS APPROXIMATELY AS FOLLOWS:

13½% less than Cinder Units
38% less than Clay Tile
40% less than Ordinary Concrete Units
63% less than Brick.

STRENGTH

FEATHERWEIGHT "HAYDITE" BUILDING UNITS, as manufactured by the various plants throughout the Central States, meet the strength requirements of all local and State Building Codes.

The code requirements are exceeded in most cases, however tests are made at regular intervals to establish the uniformity of the product as applies to compressive strength.

Varying proportions of Portland cement and Western "Haydite" aggregate can be employed to meet any special strength requirement desired by the building trade.

TEST OF FEATHERWEIGHT "HAYDITE" BUILDING UNITS MANUFACTURED BY NORTHWEST DAVENPORT CEMENT BLOCK COMPANY, DAVENPORT, IOWA

UNIVERSITY OF ILLINOIS LABORATORY

WM. J. PUTNAM, M.S.
Member A.S.T.M., A.I.E.E.
URBANA, ILLINOIS.

COMPRESSION AND ABSORPTION TESTS
OF HAYDITE BUILDING BLOCKS.
For Building Commissioner of Davenport, Iowa.

Block No.	Weight in lb. 6/25	6/27	7/1	Length in.	Width in.	Height in.	Area sq.in.	Load lb.	Stress lb./sq.in.	Percent Moisture A	B
1	25.71	26.63	24.22	15.79	7.98	7.75	126.0	151750	1200	9.95	3.58
2	26.01	26.81	24.40	15.84	7.98	7.78	126.4	168500	1330	9.90	3.06
3	26.07	26.92	24.47	15.78	7.96	7.67	125.6	167660	1330	10.00	3.26
4	25.71	26.62	24.22	15.87	7.96	7.72	126.3	156300	1240	9.90	3.54
5	25.92	26.89	24.37	15.82	7.95	7.83	125.8	154050	1220	10.34	3.74
Av.									1264	10.02	3.44.

The blocks tested were received from the Northwest Davenport Cement Block Company of Davenport, Iowa, on June 23, 1927 and a letter from Mr. Frank Payne of the Western Brick Company was received on the twenty-fifth of June giving instructions for the test. The blocks were first weighed as received and then immersed one and one-half inches in clean water at about 70° F for 48 hours. The blocks were then removed, the surface water wiped off, and the blocks weighed. They were then placed in an oven at a temperature of about 215°F and dried until they reached a constant weight which is recorded under date of 7/1 above. The bearing faces were then shellaced to prevent absorption of moisture and capped with a thin layer of plaster of paris to form plane surfaces for testing. Load was applied through a spherical block and heavy machined cast iron plates at a uniform rate of 0.05 inches per minute in a Riehle 200 000 pound testing machine.

The percent absorption has been figured in two ways; (A) in terms of the kiln dry weight, and (B) in terms of the room dry weight as received. The reason for this is that the copy of the building code included with the instructions did not specify how the percentage of moisture should be determined. For the kiln dry method the specifications of the American Concrete Institute allow 10 percent absorption for any concrete weighing 140 lb. per cu. ft. and this percentage increases as the weight decreases so that for these blocks the allowable percentage would be about 19. The net area of the blocks tested was about 60 percent of the gross cross-section area.

Respectfully submitted,

July 2, 1927. WM. J. PUTNAM.

FIRE RESISTANCE

THE fire resistance qualities of FEATHERWEIGHT HAYDITE BUILDING UNITS have been completely established.

The National Board of Fire Underwriters, at the Underwriters' Laboratories, have made complete fire tests, fire-and-fire-stream tests, in accordance with their standard specifications for Fire Tests, of FEATHERWEIGHT "HAYDITE" BUILDING UNITS, manufactured by Western Brick Company.

Your attention is called to the following excerpts from report of above test, known as Retardant No. 2051:

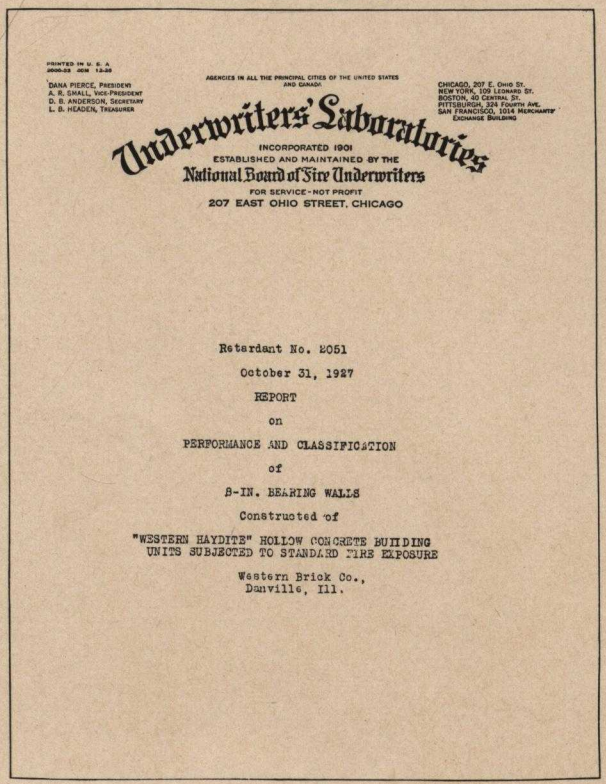
Eight-inch walls carrying their rated loads, retain their stability during exposure to severe fire for the entire time indicated by the 3-hr. classification recommended herein.

There was no appreciable spalling of the exposed faces as a result of exposure to either fire endurance, fire-and-fire-stream or excess load tests. The compressive strength of the units is in excess of the 700 lb. average and 600 lb. minimum specified in the standard. An 8-inch wall built up of the units, has adequate load bearing value.

The units may be shipped in bulk with practically no danger of injury.

RETARDANT NO. 2051

EXCERPT No. 1



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Underwriters' Laboratories

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National Board of Fire Underwriters
FOR SERVICE - NOT PROFIT
207 EAST OHIO STREET, CHICAGO

Retardant No. 2051

October 31, 1927

REPORT

on

PERFORMANCE AND CLASSIFICATION

of

8-IN. BEARING WALLS

Constructed of

"WESTERN HAYDITE" HOLLOW CONCRETE BUILDING UNITS SUBJECTED TO STANDARD FIRE EXPOSURE

Western Brick Co.,
Danville, Ill.

EXCERPT No. 2

SUMMARY OF OBSERVATIONS
CONCLUSIONS

This section summarizes observations made during the tests and contains conclusions regarding the properties of hollow concrete building units of the shape, dimensions, and composition described herein, and the properties of 8-in. load-bearing walls comprised of such units laid in portland cement mortar when subjected to standard fire test conditions.

FLAME PASSAGE:

No material passage of flame, hot gases, radiant heat, or smoke occurs through 8-in. load-bearing walls made up of these units while the assembly remains in place.

HEAT INSULATION:

The heat insulating properties of 8-in. walls assembled from 8 by 8 by 16-in. hollow units is such that the critical temperatures on the unexposed face defined by the Standard Fire Test Specification are not reached in less than 3 hr. The heat insulating properties are such that, with combustible floor members framed in critical temperatures are not reached in less than 1 hr.

The average reading of all couples on the unexposed face reached 322°F., that is 250°F. above the initial temperature of 72°F. at 3 hr. 20 min. The maximum permissible temperature, or 397°F., was reached at one point at 3 hr. 14 min.

The average temperatures indicated by eight thermocouples in contact with the inner surfaces of the exposed face shells reached 322°F. at 30-1/2 min. in the Fire Endurance Test and at 33 min. in the Fire-and Fire-Stream Test. Maximum readings of individual couples so located were first attained at 32-1/2 min. in the Fire Endurance Test and at 34-1/2 min. in the Fire-and-Fire-Stream Test. In these tests, temperatures at the centers of the core spaces, that is, 4-in. from the unexposed face of the wall, were not observed.

"FEATHERWEIGHT" HAYDITE BUILDING UNITS

FIRE RESISTANCE

EXCERPT NO. 3

Results obtained in previous tests of hollow concrete units, reported as Ret.-1555, May 1, 1924, indicate that these temperatures, which may be considered as a basis for classification of a wall having combustible structural members built in, will be reached approximately 30 min. later than the attainment of the temperatures mentioned above at the inner surfaces of the exposed face shells.

CRACKING:

The effect of unequal expansion in 8-in. walls resulting from temperature differences within the wall causes the development of vertical cracks, all of which are in the face shells oposite the center core hole of the full-size units.

The cracking in the face shells either divided or tended to divide the full-size units into two approximately equal parts or half-units. Although cracked in on or both face shells, about 48% of the units could be removed from the Fire Endurance panel and handled as one piece. About 65% of the units in the panel subjected to the Fire-and-Fire-Stream Test and Excess Load Test could be removed and handled as one piece. About 12% of these were apparently uncracked.

BULGING:

In 8-in. walls, some bulging or deflection towards the exposed side occurs during exposure to fire. During cooling, modifications in the bulging of the walls occur, resulting finally in a slight bulge and permanent set towards the unexposed side.

The maximum deflection toward the exposed side in both the Fire Endurance Test and the Fire-and-Fire-Stream Test was 3/8 in. After cooling, permanent bowing toward the unexposed side was recorded, amounting to 7/8 in. in the Fire Endurance Test and to 1/8 in. in the Fire-and-Fire-Stream Test. After the application of the excess load the permanent bowing toward the unexposed side was 7/32 in.

SPALLING:

There is no appreciable tendency to spalling of the exposed faces of the units as a result of exposure to either the Fire Endurance, Fire-and-Fire-Stream, or Excess Load Tests.

EXCERPT NO. 4

STRENGTH:

The compressive strength of the units is in excess of the 700 lb. average and 600 lb. minimum specified in the Standard. An 8-in. wall built up of the units, has adequate load-bearing value.

The ultimate compressive strength of individual full-size units 28 days old varied from 701 lb. to 1011 lb. with an average of 851 lb. per sq. in. of gross sectional area; the ultimate compressive strength of half-size units varied from 665 to 1438 lb., with an average of 907 lbs. per sq. in.

The data afforded by the Fire Endurance and the Fire-and-Fire-Stream Tests, made on wall assemblies carrying their rated loads, the Excess Load Test conducted on the Fire-and-Fire-Stream test panel, and the very considerable compressive strength of units which had been subjected to these exposures indicate that the units and their assemblies have suitable load-carrying properties.

STABILITY OF WALLS:

Eight-inch walls carrying their rated loads, retain their stability during exposure to severe fire for the entire time indicated by the 3-hr. classification recommended herein.

The 8-in. wall panels remained stable under their rated loads during the Fire Endurance and the Fire-and-Fire-Stream Tests. The excess load was applied to the panel previously subjected to the Fire-and-Fire-Stream Test without causing cracking, excessive deflection, crumbling, perceptible noises, or other indications of failure.

AGGREGATE:

The fine and coarse "Western Haydite" aggregates used in the units are of practically identical chemical composition. Chemical analysis indicates that the aggregate used consists principally of silicates of iron and aluminum, and to a lesser extent of magnesium. Lime (Calcium Oxide, CaO) and combustible materials as determined by loss of weight on ignition are practically absent (less than 0.2%).

EXCERPTS FROM RETARDANT REPORT NO. 2051 UNDERWRITERS LABORATORIES

Exposure to the Fire Endurance and Fire-and-Fire-Stream Tests indicates no abnormal heat conductivity, expansion, contraction, cracking, spalling, fusion, erosion or other disintegration of the units due to their "Western Haydite" content.

EXCERPT NO. 5

Exposure to the Fire Endurance and to the Fire-and-Fire-Stream Tests indicates no abnormal heat conductivity, expansion, contraction, cracking, spalling, fusion, erosion, or other disintrigation of the units due to their "Western Haydite" content.

PRACTICABILITY:

The units may be shipped in bulk with practically no danger of injury. They may be handled without difficulty and installed in 8-in. walls by any competent mason using ordinary tools and methods.

Approximately 400 units were shipped by freight from Danville, Illinois to Chicago. After being hauled by truck to Underwriters' Laboratories and unloaded, only one unit was found broken.

No difficulty was experienced in handling the units, using the tools and methods ordinarily employed by masons.

SUMMARY

The tests and examinations reported herein indicate that hollow concrete building units, nominally 8 by 8 by 16 in., made in accordance with the specifications contained in this report regarding shape, dimensions, composition, properties of materials and methods of manufacture, when assembled into walls 8 in. thick and with the usual limitations as to height and unbraced area, may be classified as 3-hr. load-bearing walls, or, if combustible members are framed in, as 1-hr. load-bearing walls.

EXCERPT NO. 6

RECOMMENDATION

TO THE FIRE COUNCIL OF UNDERWRITERS' LABORATORIES:

We recommend that the staff be authorized to promulgate card in the form presented below, whenever a manufacturer of hollow concrete building units, made of portland cement and "Western Haydite" aggregate, demonstrates to the staff that his product conforms to the specifications of the units forming the subject of this report.

Guide No. 40 UM2.5. October 31, 1927 Laboratories' File R2051

John Doe, Mfr.
(Address)

Concrete Building Units, Hollow

Made of portland cement and "Western Haydite" fine and coarse aggregates in the following size and pattern:
8 by 8 by 16-in. hollow
For explanation of fire retardant classifications refer to General Information Card filed back of guide card.

CLASSIFICATION:

8-in. interior or exterior walls. Non-bearing or bearing with incombustible structural members framed in R3 hr.
Bearing, with combustible structural members framed in R1 hr.
Authorities having jurisdiction should be consulted before installation.

STANDARD - Fire.

INSPECTION SERVICE.

See description of Inspection Service on guide card.

Tests by:
F.Taylor
J.B.Finnegan
C.A.Menzel
M.J.O'Brien
A.J.Steiner
C.H.Pierson
M.Melnick

Report by:
C.A. Menzel
Assistant Engineer
Protection Dept.

Reviewed by:
J.B. Finnegan
Associate Engineer
Protection Dept.

SUBMITTED

Protection Engineer

The foregoing Recommendation has been accepted and the action proposed therein has been taken.

DEC 23 1927
UNDERWRITERS' LABORATORIES

Secretary

CAM:IC

INSULATION

KEEP THE HEAT WHERE IT BELONGS: INSIDE IN WINTER OUTSIDE IN SUMMER

FEATHERWEIGHT "HAYDITE" BUILDING UNITS are unexcelled as a non-conductor of heat. The minute cellular structure even down to the finest particle of Western Haydite of the sand grade, create an insulation that forms an integral part of the wall.

The minute air cells of Western Haydite, the walls of which are as hard and enduring as the best paving or face brick produce great structural strength in the unit and being non-intercommunicating provide a pocket or container for dead air that set up an ideal insulation against the passage of heat.

The co-efficient of Heat Conductivity for a 12" x 12" slab of ordinary Western Haydite concrete, one inch thick, with a density of 73.00 is *1.62* British Thermal Units per hour when the difference in temperature is 1 degree Fahrenheit.

G. F. GEBHARDT
MECHANICAL ENGINEER
INSPECTION, TESTS AND CONSULTATION — OFFICE AND LABORATORIES ARMOUR INSTITUTE OF TECHNOLOGY
CHICAGO

April 1, 1927

Western Brick Company
Danville, Illinois

Gentlemen: Attention Mr. Payne

We submit herewith our report covering test which we have conducted to determine the rate of heat flow through a sample of Haydite Concrete submitted by you recently. In making this test, we have used the flat plate method which gives the internal coefficient of heat conductivity, surface to surface. In the data below we have expressed this coefficient in B.t.u's. per hour and per day per square foot of surface per degree Fahrenheit difference in temperature between the surfaces of the material for a one inch thickness and also for the thickness as actually tested. Results are as follows:

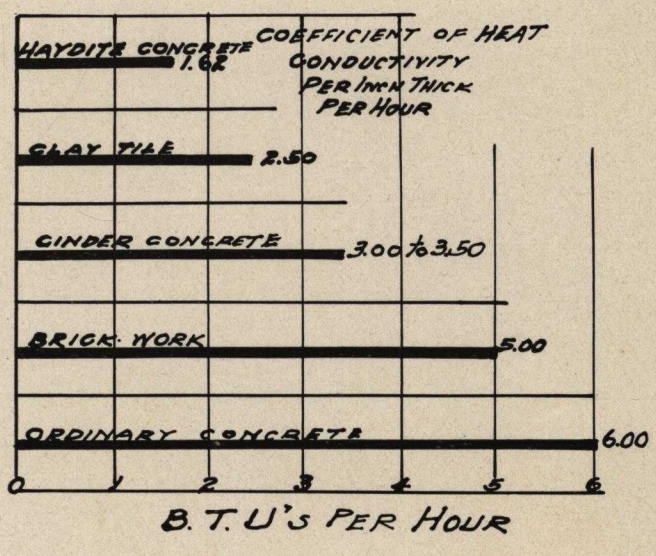
Coefficient of Heat Conductivity
Flat Plate Method

Material	Thickness Inches.	Density Lbs.Cu.Ft.	Coefficient of Heat Conductivity Per Inch Thick. Per Hour	Per Day	For Thick.Tested Per Hour	Per Day
Haydite Concrete	1.97	73.0	1.62	38.9	0.825	19.8

From the above data it will be noted that the coefficient of heat conductivity is 1.62 B.t.u's. per hour. For your information we will add that ordinary concrete shows a conductivity of approximately 6 B.t.u's. per hour, and brick work about 5 B.t.u's. per hour. Hollow clay tile will show a conductivity of approximately 2.5 B.t.u's. per hour, and cinder concrete will show a varying conductivity depending to a considerable extent upon the density. The average figure will probably be from 3 to 3.5 B.t.u's. per hour for a density in the neighborhood of 75 to 80 lbs. per cubic foot.

Respectfully submitted,
G. F. GEBHARDT.
Per J. C. Peebles

Testing Engineer:
J. C. Peebles.



Heat loss through the wall is reduced to a minimum, substantially reducing fuel bills. Special insulative materials, furring and lathing are unnecessary.

Actual experience of the Western Brick Company, on its own buildings, prove beyond any doubt, that changes in outside temperatures will not affect a wall or roof of Western Haydite concrete and the danger of condensation of the moisture contained in the air of the heated interior is eliminated almost entirely.

Insulation efficiency of Featherweight Haydite Building Units compared to other leading types of masonry walls.

SOUND INSULATION

THE design of Acoustics in building construction is of extreme importance, especially in auditoriums and other large rooms, in the reduction of reverberation. In other types of buildings the elimination of sound transmission from room to room is receiving more consideration from architects and builders than ever before.

This unit is successfully used, without plaster, with the regular face of the unit exposed in auditoriums and other large rooms. The surface texture is preserved, any degree of color or shade being obtained by spraying or painting.

Riverbank Laboratories
Geneva, Ill.

Department of Acoustics

June 6th., 1927.

Western Brick Company,
Danville, Illinois.

Gentlemen:-

This is to report to you the results of the tests conducted in the Riverbank Laboratories on the transmission of sound by a partition built of Haydite Partition Blocks.

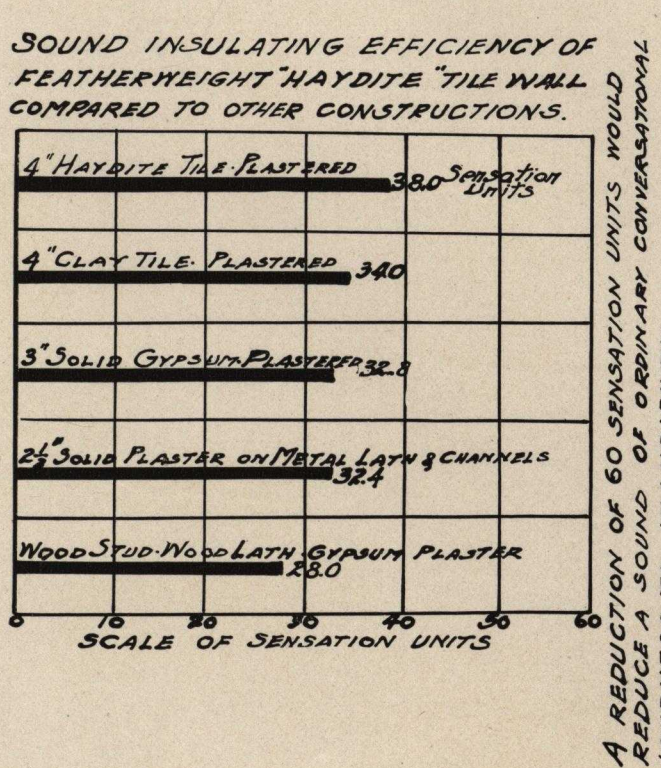
These tests were conducted by what is known as the Reverberation Method devised by Professor Wallace Sabine and used in this laboratory in the study of the general problem of sound transmission in partition construction. Sound of a known initial intensity is produced in a highly reverberant room, whose acoustical constants are known from an initial calibration. From the measurement of the times required for this sound to reach the threshold of audibility, first in the Sound Chamber, and then in the Test Chamber on the opposite side of the test wall, the relative intensities of the direct and transmitted sound are computed. The logarithm of the ratio of these intensities is taken as a measure of the sound insulating merits of the test partition. Tests of this sort were made using 17 different tones covering the ordinary range of pitch. The average value of these quantities is taken as a single figure which expresses the sound insulating properties of walls. Multiplying this average value by 10 gives the difference in loundness of sound on opposite sides of the test partition in Sensation Units. A difference of one sensation unit corresponds to a change in intensity which is just perceptible as adifference in loudness as judged by the ear.

The results of these tests and similar tests on a few other standard types of construction are given below:

	Wt. per sq.ft.	Reduction
3" Solid Gypsum Tile, plastered	25.4	32.8
4" Clay tile, plastered	28.0	34.0
2½" gypsum plaster on metal lath	23.2	32.4
4½" " " " "	41.8	38.2
Wood stud, wood lath, gypsum plaster	18.0	28.0
4" Haydite Tile, plastered	23.2	38.0

Conversational speech can be faintly heard but not understood and the sound of a phonograph is almost completely extinguished through the Haydite partition.

Yours truly
Paul E. Sabine
For THE RIVERBANK LABORATORIES.



An excerpt from tests by RIVERBANK LABORATORIES, Geneva, Illinois, on the four inch FEATHERWEIGHT partition unit reads as follows:

"Conversational speech can be faintly heard but not understood and the sound of a phonograph is almost completely extinguished through the Haydite Partition."

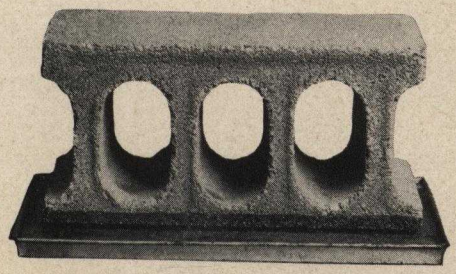
Featherweight Haydite Partition Units Show the Greatest Number of Sensation Units in Sound Reduction of Five Leading Types of Partition Materials.

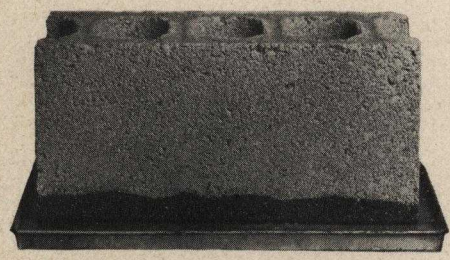
DAMP-PROOF

THE illustrations below show the slight absorption and the lack of capillarity of the FEATHERWEIGHT HAYDITE BUILDING UNIT after 24 hours immersion in water. This quality is of extreme importance in producing a strong mortar joint, as the moisture is not drawn out of the mortar as is the case of brick, clay tile or masonry materials of greater density.

Condensation of moisture on a cooling wall is one of the greatest causes of moisture or sweating appearing on the interior. Due to the cellular structure of WESTERN HAYDITE, condensation is eliminated, the temperature of the wall is slow in changing and moisture remains suspended in the air of the room without reaching the saturation point.

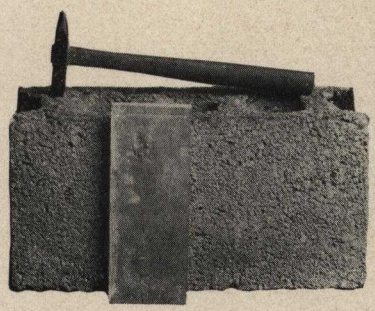
Many important buildings have been constructed with the plaster applied direct to the unit without lathing and such buildings show no dampness, cracking or discoloration of the plaster.





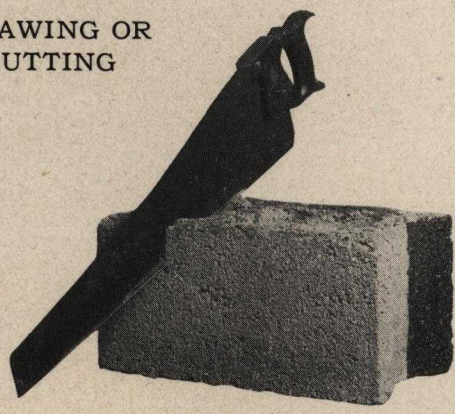
DRY BASEMENT WALLS. Owing to the porous or cellular nature of WESTERN HAYDITE, a dry basement wall can be built by using proper construction methods, the line of least resistance to water coming in contact with the outside basement wall is downward, due to gravity, rather than through the unit.

NAILING



Wood trim can be nailed directly to the unit, eliminating the expense of placing nailing strips while the wall is being built. Nails will not rust or come loose. This feature alone means a substantial saving in labor.

SAWING OR CUTTING



FEATHERWEIGHT HAYDITE UNITS CAN be easily cut or channelled without breakage—an important advantage where conduits and pipes must be recessed into the wall to provide a smooth interior finish.

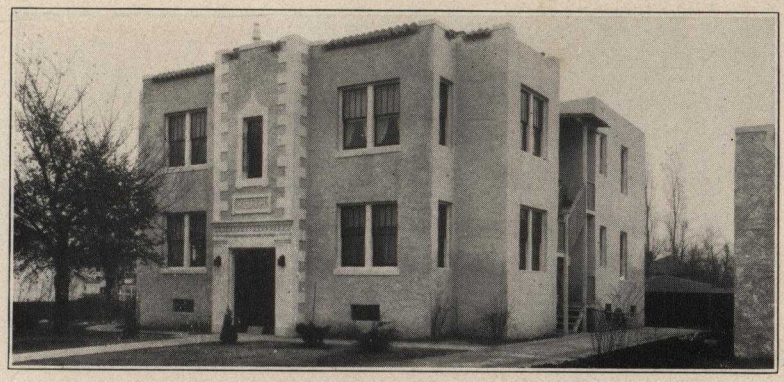
PLASTER AND STUCCO SURFACE

THE surface texture of the FEATHERWEIGHT "HAYDITE" UNIT offers an ideal base for the application of plaster and stucco. Owing to the small irregularities of the HAYDITE surface, the particles of plaster and stucco dovetail into the face of the unit forming a key or dowel, giving a uniform cohesion of the materials to the surface of the wall.

Plaster and stucco can be applied directly to the unit without metal lath on the exterior or lathing and furring the inside faces of the unit.

The quick, even absorption of the unit permits plaster to be applied at a rapid rate and the trueness of the wall, even suction and excellent cohesion offer great economy in labor and material. Most walls of FEATHERWEIGHT "HAYDITE" UNITS require only a very thin straightening coat of plaster owing to the consistent uniformity of the size of the unit.

REPRESENTATIVE BUILDINGS WITH STUCCO AND PLASTER APPLIED DIRECTLY TO THE UNIT WITHOUT METAL LATH OR LATHING AND FURRING.



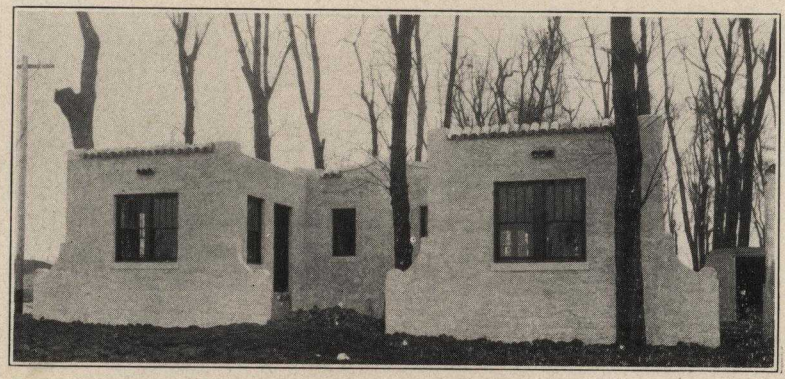
APARTMENT BUILDING
NORMAL, ILLINOIS
HARRY FILER, Architect

RESIDENCE
NORMAL, ILLINOIS
HARRY FILER, Architect

MIAMI CONSTRUCTION CO.
BUILDERS

Featherweight "Haydite" Units
Used Throughout

Units Manufactured by
THE J. F. APFIELD CONCRETE CO.
Bloomington, Illinois



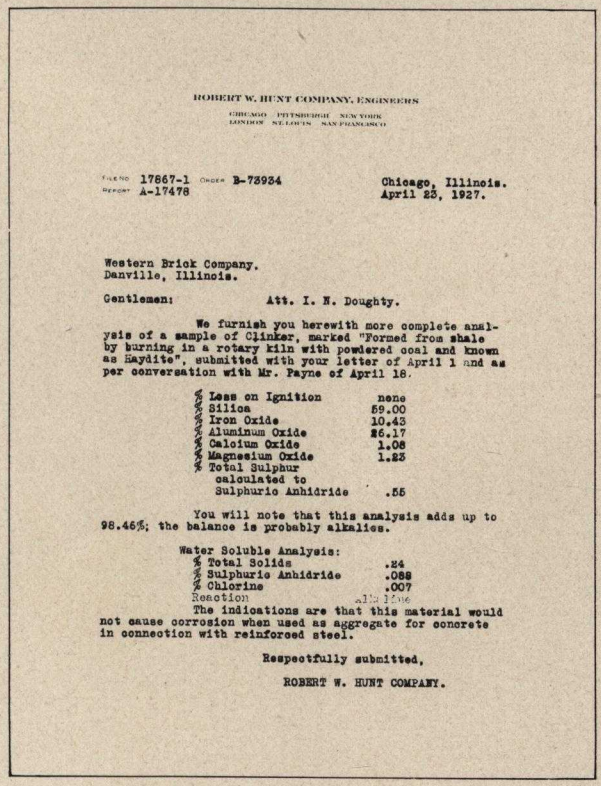
NON-CORROSIVE

WESTERN HAYDITE AGGREGATE, which is used in the manufacture of the FEATHERWEIGHT "HAYDITE" BUILDING UNIT, is made from pure shale, subjected to intense heat and is absolutely free from silt, sulphur or impurities that cause corrosion of metals. The aggregate is completely inert.

WESTERN HAYDITE is a preservative of metals and there is no danger of corrosion of steel, nails, conduits, pipes, metal lath, metal wall ties or other metal coming in contact with the FEATHERWEIGHT "HAYDITE" BUILDING UNIT.

WOOD TRIM CAN BE SAFELY NAILED INTO THE UNIT, AS THE NAILS WILL NOT CORRODE AND CAUSE THE TRIM TO LOOSEN FROM THE UNIT.

The non-corrosive features of the unit are emphasized by the report of the ROBERT W. HUNT COMPANY, ENGINEERS, CHICAGO, which report is reproduced below.



ROBERT W. HUNT COMPANY, ENGINEERS

CHICAGO PITTSBURGH NEW YORK
LONDON ST. LOUIS SAN FRANCISCO

File No. 17867-1 Order B-73934
Report A-17478

Chicago, Illinois.
April 23, 1927.

Western Brick Company,
Danville, Illinois.

Gentlemen: Att. I. N. Doughty.

We furnish you herewith more complete analysis of a sample of Clinker, marked "Formed from shale by burning in a rotary kiln with powdered coal and known as Haydite", submitted with your letter of April 1 and as per conversation with Mr. Payne of April 18.

% Loss on Ignition	none
% Silica	59.00
% Iron Oxide	10.43
% Aluminum Oxide	26.17
% Calcium Oxide	1.08
% Magnesium Oxide	1.23
% Total Sulphur calculated to Sulphuric Anhidride	.55

You will note that this analysis adds up to 98.46%; the balance is probably alkalies.

Water Soluble Analysis:

% Total Solids	.24
% Sulphuric Anhidride	.088
% Chlorine	.007
Reaction	alkaline

The indications are that this material would not cause corrosion when used as aggregate for concrete in connection with reinforced steel.

Respectfully submitted,

ROBERT W. HUNT COMPANY.

ECONOMY OF CONSTRUCTION

LAYING IN WALL-LIGHTWEIGHT—Being the lightest weight fire resistant wall unit now available, there is a substantial saving in mason labor. The wide mortar bed and trueness of the unit make for unusual speed in laying.

MORTAR—A large saving can be effected both in labor and material owing to the small comparative amount of mortar required to lay the unit. 100 square feet of 8" wall of different materials requires mortar as follows:

8" x 8" x 16" FEATHERWEIGHT "HAYDITE" UNITS	5½ Cu. Ft.
5" x 8" x 12" Clay Tile	13½ Cu. Ft.
Common Brick	23 Cu. Ft.

DEAD LOAD—Owing to the lightness of the unit, a saving in load-bearing members of skeleton construction can be made.

ELIMINATION OF LATH—Plaster and stucco can safely be applied to the unit without furring and lathing the interior or using metal lath on the exterior of the unit.

ECONOMY IN PLASTER—Consistent trueness of walls makes only a thin straightening coat of plaster necessary.

BREAKAGE—Compared to other wall units, the amount of breakage in shipping, trucking and handling into the wall is so small as to be negligible.

NAILING—Of utmost importance is the nailing feature of the unit. All grounds and trim being nailed direct to the unit, nailing plugs are eliminated, making a real saving in labor.

The human element enters so largely into building that it is very difficult to express the economy of the Featherweight "Haydite" Unit in dollars and cents. The architect or builder who has once used this unit, immediately recognizes the tremendous economy in actual construction.

The letter appearing at the right is typical of the experience of many builders on construction of important work where the Featherweight "Haydite" Unit has been used in the past.

F. C. STROHBEHN, President — RALPH P. HAYES, Vice-Pres. and Engineer

F. C. Strohbehn Company, Inc.
GENERAL CONTRACTORS
1604 Hill Street
Davenport, Iowa

August 9, 1927.

Warford Construction Co.,
Aurora, Illinois. Attention Mr. Krehbiel.

Dear Sir:-

In reply to your request of the success of Haydite Tile as used in the Chiropractic Sanitarium of Palmer School.

In this Sanitarium which we designed and built we found numerous savings in the use of Haydite tile over clay tile and common brick.

For instance two masons and three helpers laid 1600 - 8"x8"x16" tile in one day or the equivalent of 12,000 brick for $34.20. We also found a tremendous saving in the use of Haydite slabs for ceiling construction which amounted to about $1.25 per yd.

There were other savings where we cannot estimate the exact saving such as electrical boxes, wall switches, etc.; also a big saving in plaster by having plumb wall.

If there is any other information that we can supply you with we will be pleased to do so.

Yours very truly,

F. C. STROHBEHN COMPANY, INC.

Ralph P. Hayes

FREEZING AND AGE-PROOF

COMPLETE laboratory tests indicate that FEATHERWEIGHT "HAYDITE" BUILDING UNITS actually gain strength while being submitted to most severe freezing and thawing tests.

FEATHERWEIGHT "HAYDITE" BUILDING UNITS were submitted for test to the College of Mechanics and Engineering, University of Wisconsin, from a number of products plants, among them being specimens manufactured by Julius Sorenson and Sons, Racine, Wisconsin.

The report of Prof. C. A. Wiepking, who personally conducted the tests, makes the following comment on the Sorenson FEATHERWEIGHT "HAYDITE" UNITS:

"Summary of table 1 shows that the Haydite specimens had sufficient strength after the 100th. reversal of freezing and thawing to still meet the requirements of the Wisconsin Building Code. In fact the average strength of the four specimens after freezing was higher than the average strength of the four specimens tested at 28 days. However, it is not as high as the average strength of four specimens tested at 102 days without freezing. THUS WE MAY ASSUME THAT THE HAYDITE INCREASED IN STRENGTH DURING THE FREEZING RUN, but not as much as under ordinary temperature conditions."

PROCEDURE. 100 alternate freezing and thawings were made. Average temperature of freezing chamber was 21 degrees F. After being frozen solid, the specimens were placed in a tank of water with a temperature of 140 degrees F. for a one-hour thawing period. This constituted one reversal, this process being repeated 100 times.

Tests below show that the specimens tested after 100 freezing reversals increased in strength from an average of 801 lbs. to 967 lbs. per sq. in. during this severe test.

THE UNIVERSITY OF WISCONSIN — Data Sheet 1

COLLEGE OF ENGINEERING — DEPARTMENT OF MECHANICS
Laboratory for Testing Materials

Results of Tests on Concrete Building Block — Size and Type Haydite Blocks 8 x 8 x 16-inch 3-cell
Made for Julius Sorenson & Sons, Manufacturer — Address Racine, Wisconsin
Samples selected by
Scoring or facing Plain Faces — 28-DAY TEST - NO FREEZING

(A) DATA REQUIRED ON CONCRETE AND MORTAR PRODUCTS
(Information furnished by Manufacturer or Inspector)

Date made — Type of Aggregate
Grading of Aggregate
Proportion of Cement — Consistency
Mixer, Size and Type — Time of Mixing, dry ... min., wet ... min.
Type of Molding Machine
Method and Time of Curing
Brands or Marks

(B) COMPRESSION TEST DATA

Loaded on 8 x 16-inch faces; cells vertical — Bedded in No. 5 Stucco

Mark or Number	S- 2	S - 8	S - 10	S - 12	
Seal Number	- - - - - not sealed - - - - -				
Weight of Block (lb.)	27.05	26.30	25.15	25.90	
Height (inches)	7.8	7.8	7.8	7.8	
Dimensions of Loaded Cross Section (in.)	8.0x15.8	8.0x15.8	8.0x15.8	8.0x15.8	
Area of Section (Sq. in.)	126.4	126.4	126.4	126.4	
MAXIMUM LOAD (lb.)	124,000	104,760	87,640	89,170	
ULTIMATE STRENGTH, (lb. per sq. in.)	980	827	693	705	

Character of Fracture Complete shear in No.2 and 8; shear on one side in others
Remarks Aggregate well graded Haydite - up to ½-inch in size
Date of Compression Test August 31, 1927 — AGE 28-DAYS WHEN TESTED

(C) VOIDS TEST DATA

Mark or Number	S-2	S-8	S-10	S-12	
Section Area (Sq. in.)	126.4	126.4	126.4	126.4	
Number of Cells	Three round-end cells and 2 rounded end depressions				
Cell Dimensions (in.)	4.9x2.3	same	same	same	(12.1)
End Depressions (in.)	5.0x1.25	same	same	same	(5.6)
Cell Area (Sq. in.)	47.5	47.5	47.5	47.5	
PERCENT VOIDS	37.6	37.6	37.6	37.6	

(D) ABSORPTION TEST DATA (Weight in Pounds)

Mark or Number	S - 2	S - 8	S - 10	S - 12	
Weight after immersion in water 48 hr.	31.5	29.8	29.0	29.3	
Weight, Dry Specimen	25.3	24.7	24.2	24.9	
Gain in Weight	6.2	5.1	4.8	4.4	
PERCENT ABSORPTION	24.5	20.6	19.8%	17.7%	

Madison, Wisconsin, September 10, 1927 — C. A. Wiepking, Observer.

We reserve the right to publish the results of all tests made at this laboratory.
We withhold names of parties from publication if requested.

THE UNIVERSITY OF WISCONSIN — Data Sheet 3.

COLLEGE OF ENGINEERING — DEPARTMENT OF MECHANICS
Laboratory for Testing Materials

Results of Tests on Concrete Building Block — Size and Type Haydite Blocks 8x8x16-inch 3-cell
Made for Julius Sorenson & Sons, Manufacturer — Address Racine, Wisconsin
Samples selected by
Scoring or facing Plain faces. — 102-DAY TEST - AFTER 100 FREEZING REVERSALS

(A) DATA REQUIRED ON CONCRETE AND MORTAR PRODUCTS
(Information furnished by Manufacturer or Inspector)

Date made — Type of Aggregate
Grading of Aggregate
Proportion of Cement — Consistency
Mixer, Size and Type — Time of Mixing, dry ... min., wet ... min.
Type of Molding Machine
Method and Time of Curing
Brands or Marks

(B) COMPRESSION TEST DATA

Loaded on 8 x 16-inch faces; cells vertical — Bedded in No. 5 Stucco

Mark or Number	S-1	S-3	S-5	S-6	
Seal Number	- - - - - not sealed - - - - -				
Weight of Block (lb.)	26.85	26.35	26.70	25.50	
Height (inches)	7.8	7.8	7.8	7.85	
Dimensions of Loaded Cross Section (in.)	8.0x15.8	8.0x15.8	8.0x15.8	8.0x15.8	
Area of Section (Sq. in.)	126.4	126.4	126.4	126.4	
MAXIMUM LOAD (lb.)	125,400	123,340	121,120	119,170	
ULTIMATE STRENGTH, (lb. per sq. in.)	992	976	959	944	

Character of Fracture Shear along one face in No.5. Complete shear in others.
Remarks Aggregate well graded Haydite; up to ½-inch in size.
Date of Compression Test November 13, 1927 — AGE 102 DAYS WHEN TESTED

(C) VOIDS TEST DATA

Mark or Number	S-1	S-3	S-5	S-6	
Section Area (Sq. in.)	126.4	126.4	126.4	126.4	
Number of Cells	Three round-end cells and 2 rounded end depressions				
Cell Dimensions (in.)	4.9x2.8	same	same	same	(12.1)
End Depressions (in.)	5.0x1.25	same	same	same	(5.6)
Cell Area (Sq. in.)	47.5	47.5	47.5	47.5	
PERCENT VOIDS	37.6	37.6	37.6	37.6	

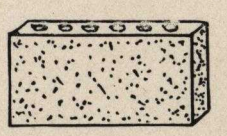
(D) ABSORPTION TEST DATA (Weight in Pounds) (at 28 days)

Mark or Number	S-1	S-3	S-5	S-6	
Weight after immersion in water 48 hr.	31.20	30.65	31.20	29.75	
Weight, Dry Specimen	25.40	24.90	25.00	24.00	
Gain in Weight	5.80	5.75	6.20	5.75	
PERCENT ABSORPTION	22.8	23.1	24.8	23.9	

Madison, Wisconsin, December 23, 1927 — C. A. Wiepking, Observer.

We reserve the right to publish the results of all tests made at this laboratory.
We withhold names of parties from publication if requested.

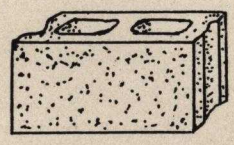
REPRESENTATIVE UNITS



3" FEATHERWEIGHT "HAYDITE" TILE

Nominal Size . . . . . 3 x 8 x 16
Actual Size . . . . . 3 x 7¾ x 15¾

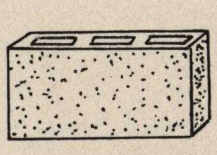
Made with solid top to facilitate spreading mortar. An ideal partition unit.



8" STANDARD FEATHERWEIGHT "HAYDITE" UNIT

Nonimal Size . . . . . 8 x 8 x 16
Actual Size . . . . . 8 x 7¾ x 15¾

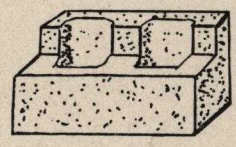
Used as a back-up for 12" Walls and as independent unit in 8" walls.



4" FEATHERWEIGHT "HAYDITE" TILE

Nominal Size . . . . . 4 x 8 x 16
Actual Size . . . . . 4 x 7¾ x 15¾

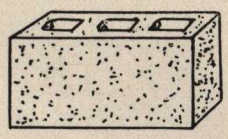
Also made with top almost closed to facilitate spreading mortar. A partition and back-up unit.



8" STANDARD FEATHERWEIGHT "HAYDITE" HEADER UNIT

Actual Size . . . . . 8 x 7¾ x 15¾

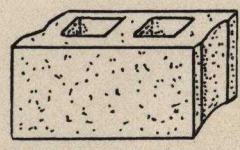
For bonding brick veneer with headers every sixth course.



6" FEATHERWEIGHT "HAYDITE" TILE

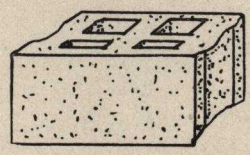
Nominal Size . . . . . 6 x 8 x 16
Actual Size . . . . . 6 x 7¾ x 15¾

Used for back-up with face brick exterior where a 10" wall is desired.



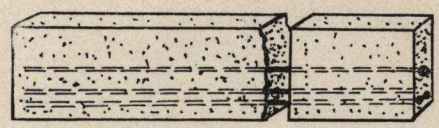
10" STANDARD FEATHERWEIGHT "HAYDITE" UNIT

Nominal Size . . . . . 10 x 8 x 16
Actual Size . . . . . 10 x 7¾ x 15¾



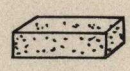
12" STANDARD FEATHERWEIGHT "HAYDITE" UNIT

Nominal Size . . . . . 12 x 8 x 16
Actual Size . . . . . 12 x 7¾ x 15¾



HAYDITE LINTELS

Widths . . . . . 3¾", 5¾", 8"
Lengths . . . . . 2' 8" to 10' 8"
Height . . . . . 7¾"



HAYDITE BRICK

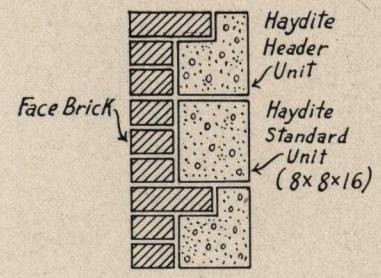
Height . . . . . 2⅜"
Width . . . . . 3¾"
Length . . . . . 8"

For Bonding brick veneer with Standard Haydite Unit.

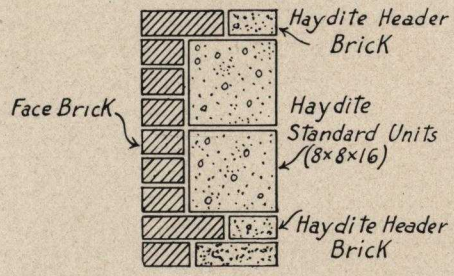
THE IDEAL BACK-UP UNIT

CONSTRUCTION DETAILS

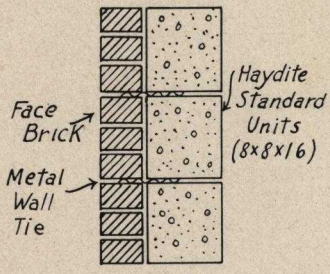
DETAIL SHOWING "FEATHERWEIGHT" HAYDITE HEADER UNIT



DETAIL SHOWING "FEATHERWEIGHT" HAYDITE HEADER BRICK

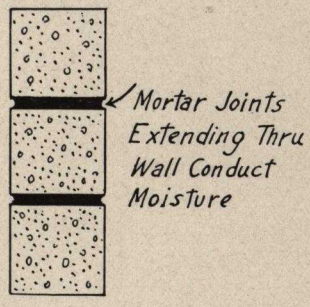


DETAIL SHOWING METAL WALL-TIE BOND

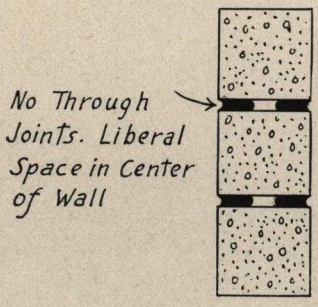


IN INTERRUPTED MORTAR JOINT MEANS A DRY WALL AVOID THROUGH JOINTS

WRONG WAY



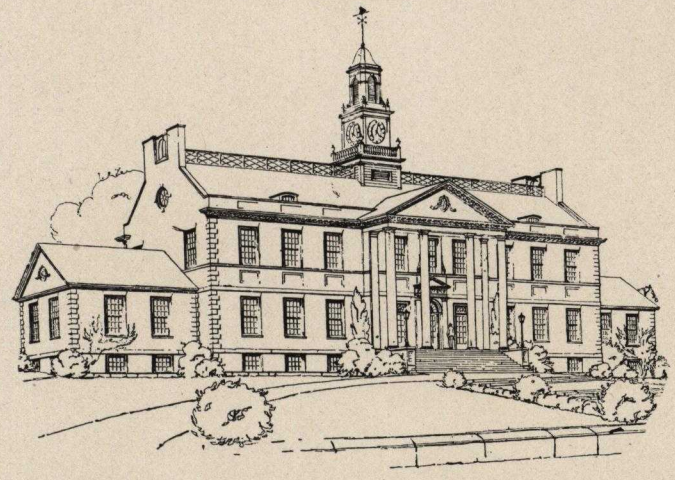
RIGHT WAY



IMPORTANT EXCERPT FROM "SPECIFICATIONS FOR CONSTRUCTION WITH FEATHERWEIGHT HAYDITE BUILDING UNITS"

All units shall be laid with the cells vertical in wall, and in such manner that the main bearing webs come in proper relation for bearing with those of the unit below. *No vertical or horizontal joints shall be mortared through the walls but liberal air spaces shall be left in the center of the walls by buttering the two edges of each unit on both horizontal and vertical joints.*

"FEATHERWEIGHT" HAYDITE BUILDING UNITS



FEATHERWEIGHT "HAYDITE" UNITS USED AS BACK-UP
Manufactured By
WARFORD CONSTRUCTION CO.
Aurora, Illinois

HINSDALE WAR MEMORIAL
HINSDALE, ILLINOIS

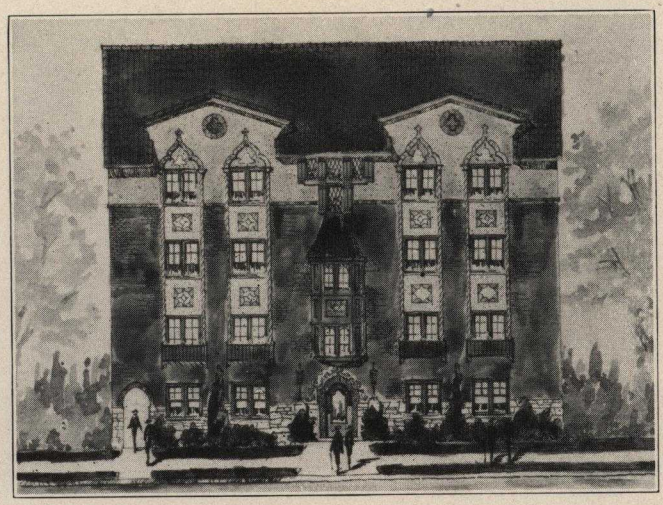
EDWIN H. CLARKE, Architect
Chicago

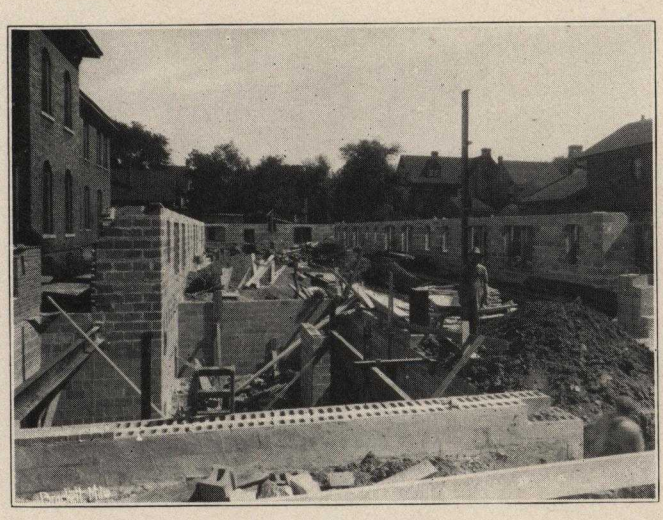
ADAMS CONSTRUCTION CO., Builder
Chicago

PALOMA APARTMENTS
MILWAUKEE, WIS.

HUGO HAEUSER, Architect
Milwaukee, Wis.

LUPINSKI & WOLFF, Builders
Milwaukee, Wis.





FEATHERWEIGHT "HAYDITE" UNITS
USED IN BACK-UP AND
BASEMENT WALLS

MONOLITHIC "HAYDITE" PARTITIONS

Units Manufactured By
BEST BLOCK COMPANY
Milwaukee

"FEATHERWEIGHT" HAYDITE BUILDING UNITS

Residence of HOWARD A. SWALLOW
DANVILLE, ILL.

LEWIS & DOUGHERTY, Architects
C. E. STEVENS, Builder

FEATHERWEIGHT "HAYDITE" UNITS USED IN BACK-UP AND BASEMENT WALLS.

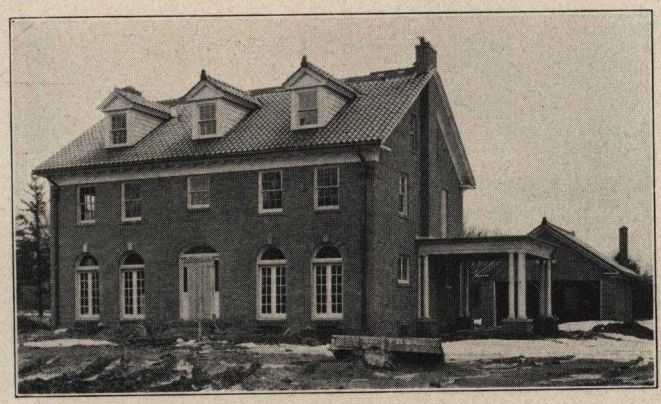
Units Manufactured By
WESTERN BRICK COMPANY
Danville, Ill.

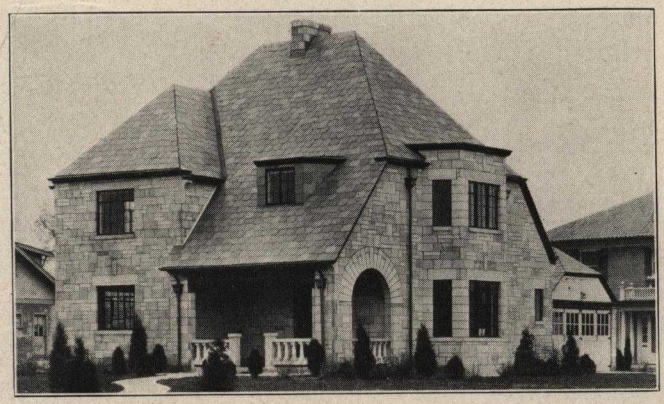
Residence of C. C. PADDOCK
BATAVIA, ILL.

E. M. ELWOOD, Architect
LOUIS HILL, Builder

FEATHERWEIGHT "HAYDITE" UNITS USED IN BACK-UP.

Units Manufactured By
WARFORD CONSTRUCTION CO.
Aurora, Ill.





Residence of C. E. CARTER
INDIANAPOLIS

C. E. CARTER, Architect and Builder

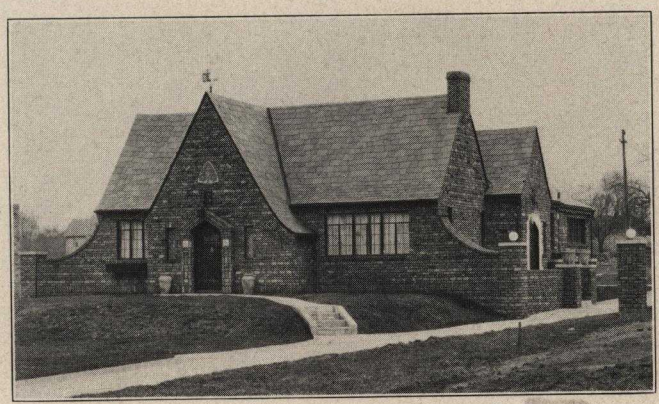
FEATHERWEIGHT "HAYDITE" UNITS USED EXCLUSIVELY IN BACK-UP.

Units Manufactured By
SPICKLEMEIIR FUEL & SUPPLY CO.
Indianapolis, Ind.

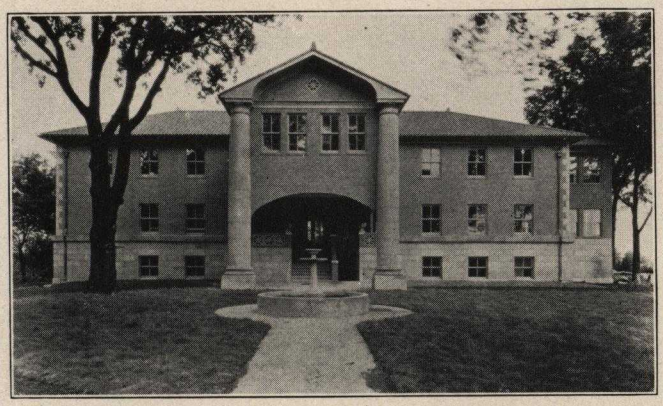
Residence of LAWRENCE CUMMINS
INDIANAPOLIS

CLARENCE MYERS, Architect

FEATHERWEIGHT "HAYDITE" UNITS IN BACK-UP AND BASEMENT WALLS.



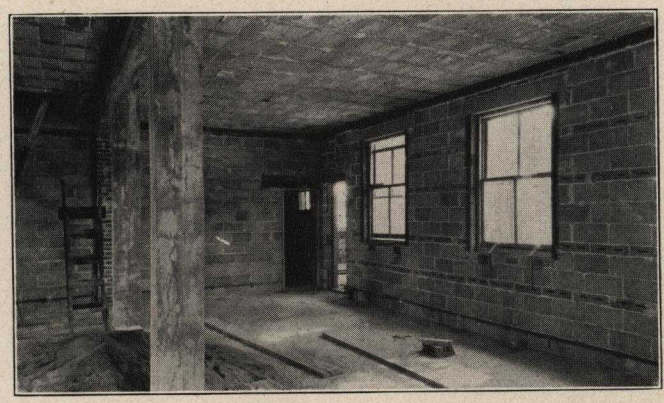
"FEATHERWEIGHT" HAYDITE BUILDING UNITS



CHIROPRACTIC PSYCHOPATHIC SANITARIUM

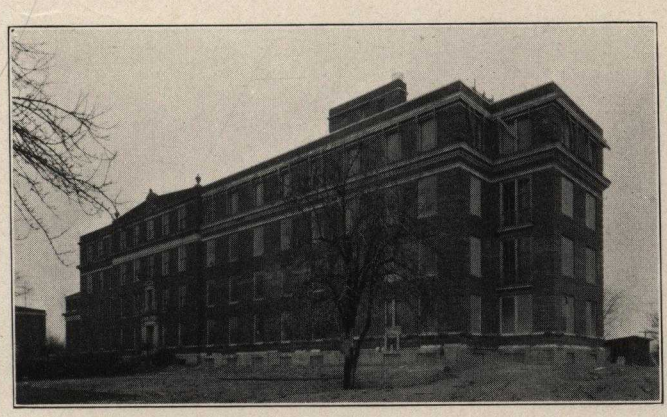
DAVENPORT, IOWA

F. C. STROHBEHN CO., INC.
Builders
Davenport, Iowa



BUILDING SHOWING USE OF FEATHERWEIGHT "HAYDITE" IN FLOOR SYSTEM, BACK-UP AND PARTITIONS.

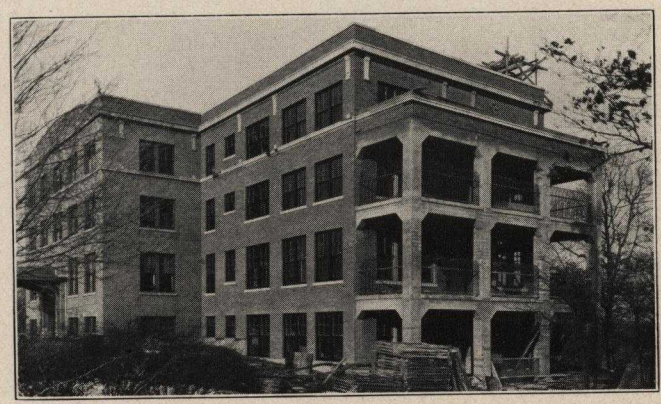
Units Manufactured By
Northwest Davenport Cement Block Co.
Davenport, Iowa



ADDITION TO HOME HOSPITAL
LA FAYETTE, IND.

WALTER SCHOLER, Architect
A. E. KEMMER, Builder
La Fayette, Ind.

FEATHERWEIGHT "HAYDITE" UNITS USED AS BACK-UP.



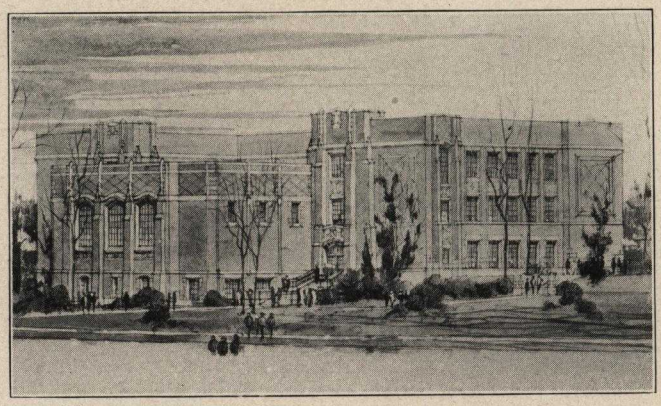
ADDITION TO AURORA SANITARIUM

FRANK GRAY, Architect
OLSON BROS., Builders
Aurora, Illinois

FEATHERWEIGHT "HAYDITE" UNITS USED AS BACK-UP.

Manufactured By
WARFORD CONSTRUCTION COMPANY
Aurora, Illinois

"FEATHERWEIGHT" HAYDITE BUILDING UNITS



DOWNERS GROVE HIGH SCHOOL
DOWNERS GROVE, ILL.

ROYER, DANELY & SMITH, Architects
Urbana, Ill.

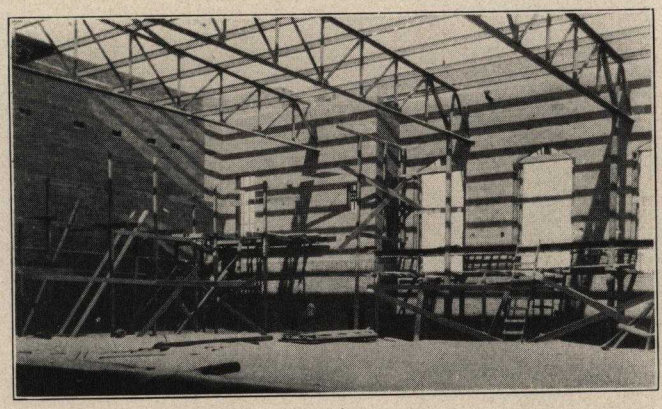
PETERSON-COLWELL CO., Builders
Minneapolis

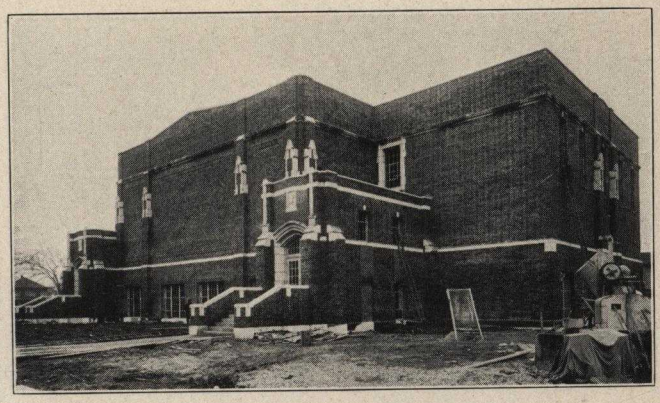
FEATHERWEIGHT "HAYDITE" UNITS IN BACK-UP AND PARTITIONS.

Units Manufactured By
WARFORD CONSTRUCTION CO.
Aurora, Ill.

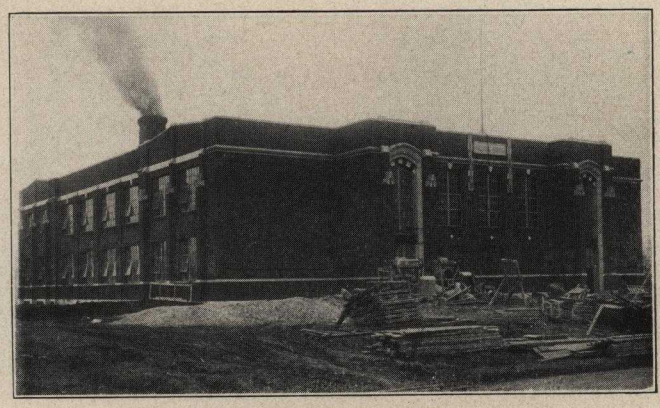
NOTE THE FEATHERWEIGHT "HAYDITE" UNIT USED AS HEAVY LOAD-BEARING UNIT.

THE SURFACE TEXTURE OF THE UNIT IS TO BE PRESERVED FOR ITS ACOUSTICAL VALUE.





JOHN GREER HIGH SCHOOL GYMNASIUM



HONEYWELL GRADE SCHOOL

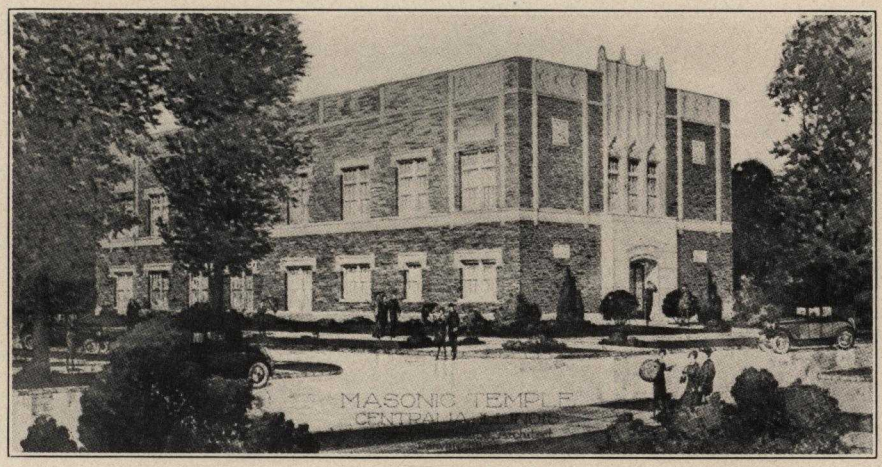
HOOPESTON, ILLINOIS

ROYER, DANELY & SMITH, Architects
Urbana, Illinois

JOHN W. MONTGOMERY, Builder
Danville, Illinois

FEATHERWEIGHT "HAYDITE" UNITS USED FOR BACK-UP.

"FEATHERWEIGHT" HAYDITE BUILDING UNITS

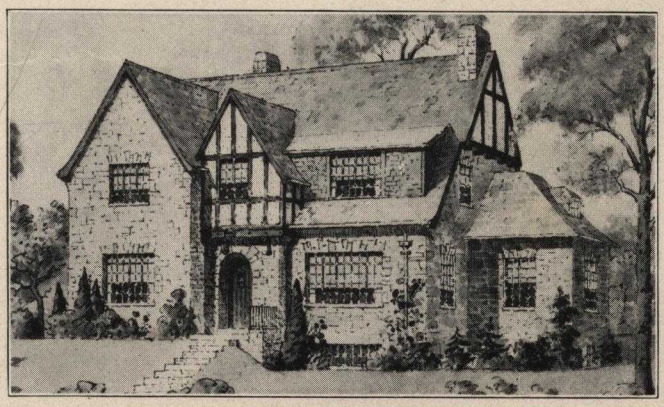


MASONIC TEMPLE
CENTRALIA, ILLINOIS

LEONARD F. W. STUEBE, Architect
Danville, Illinois

GEORGE HODSON, Builder
Centralia, Illinois

FEATHERWEIGHT "HAYDITE" UNITS USED FOR BACK-UP.



Residence of JAS. L. AUSTIN
MILWAUKEE, WIS.

A. L. SEIDENSCHWARTZ, Architect
REINHOLD A. DECKER, Builder

FEATHERWEIGHT HAYDITE BACK-UP
AND PARTITIONS

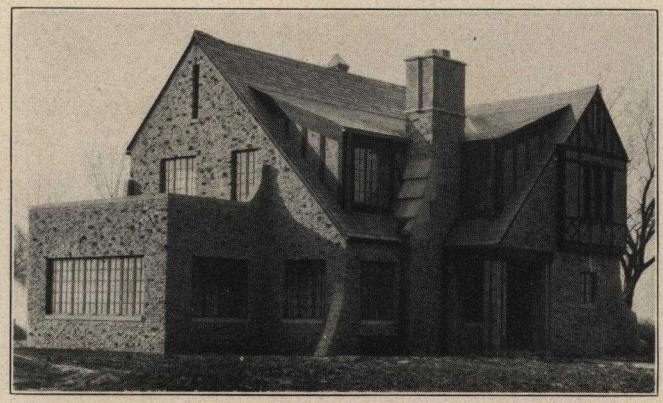
Manufactured By
BEST BLOCK COMPANY
Milwaukee

Residence of FRED E. WHALLON
JOLIET, ILLINOIS

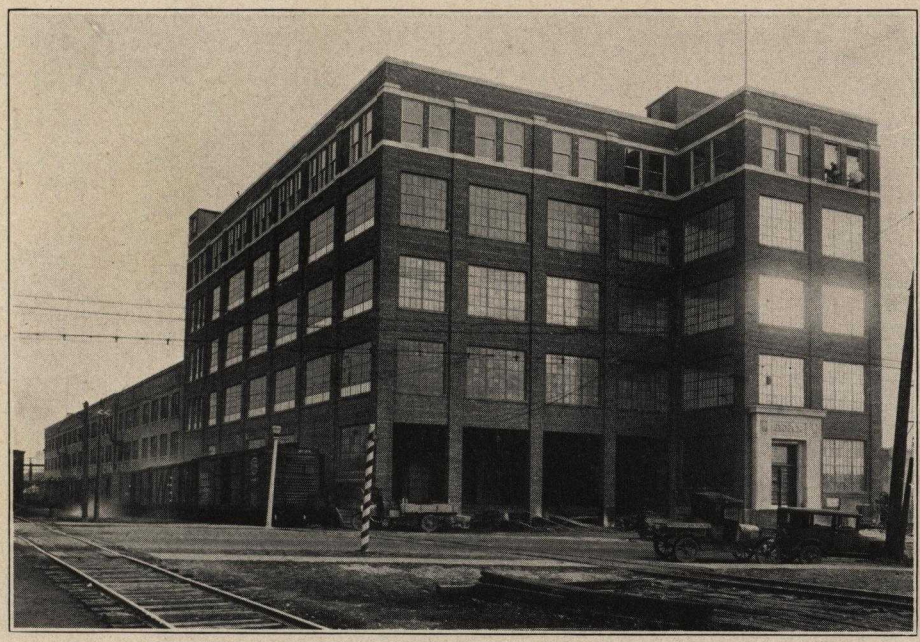
J. E. COYLE, Architect
ANDERS & HALLELAND, Builders
Joliet, Illinois

FEATHERWEIGHT "HAYDITE" UNITS USED
IN BOTH FOUNDATION WALLS
AND BACK-UP.

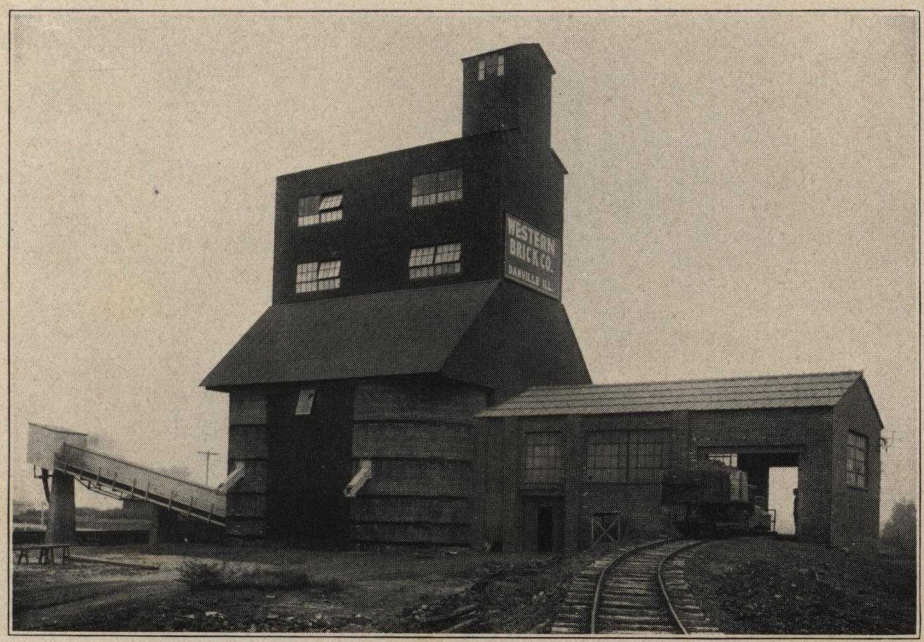
Manufactured By
A. W. HAYS, Joliet, Illinois



"FEATHERWEIGHT" HAYDITE BUILDING UNITS



Plant of AJAX RUBBER CO., Racine, Wis.
FEATHERWEIGHT "HAYDITE" UNITS IN ALL INTERIOR PARTITIONS
Manufactured By
JULIUS SORENSON & SONS, Racine, Wis.
FRANK J. HOFFMAN, Architect
NELSON & CO., Builders



Home of "WESTERN HAYDITE" AGGREGATE
HAYDITE GRINDING AND SCREENING PLANT
DANVILLE, ILLINOIS
FEATHERWEIGHT "HAYDITE" UNITS USED IN BACK-UP
PRE-CAST "HAYDITE" ROOF SLABS
Manufactured By
FEDERAL CEMENT TILE COMPANY

"THE MARK OF QUALITY"

HAYDITE BUILDING UNITS. A.I.A. FILE NO. 10a2.